COGNITIVE PSYCHOLOGY: PERCEIVING THE VISUAL WORLD

HUMANS DEAL WITH A COMPLEX ENVIRONMENT, RELYING PRIMARILY ON THEIR **VISUAL SENSORY MODALITY**.

WHY?

OUR PRIMATE ANCESTORS EVOLVED IN AN ENVIRONMENT THAT SELECTED FOR **VISUAL DOMINANCE**.

OTHER MAMMALS RELY MUCH MORE HEAVILY ON OTHER SENSES E.G. DOLPHINS AND BATS HAVE EVOLVED WITH **AUDITORY DOMINANCE**.

HOW?

LIGHT FROM THE SUN OR OTHER LIGHT SOURCES IS REFLECTED OFF THE OBJECTS IN OUR **ENVIRONMENT**. SOME OF THIS REFLECTED LIGHT ENTERS OUR EYES THROUGH A FOCUSING **LENS**, ONTO THE **RETINA** AT THE BACK OF THE EYE.

SENSING LIGHT WITH THE RETINA IS NOT THE SAME AS **PERCEIVING** THE WORLD.

THE IMAGE FORMED BY LIGHT HITTING EACH RETINA IS FLAT BUT WE PERCEIVE A 3D WORLD WITH SOLIDITY AND **DEPTH**.

DEPTH PERCEPTION RELIES ON **DEPTH CUES** BEING PROCESSED BY OUR BRAINS.

BINOCULAR DEPTH CUES RELY ON THE USE OF INPUT FROM BOTH EYES. EXAMPLES ARE CONVERGENCE AND RETINAL DISPARITY.

MONOCULAR DEPTH CUES REQUIRE INPUT FROM ONLY ONE EYE. EXAMPLES INCLUDE RELATIVE SIZE, LINEAR PERSPECTIVE, OCCLUSION AND TEXTURE GRADIENT.

THE IMAGE FORMED BY LIGHT HITTING EACH RETINA IS TINY AND UPSIDE-DOWN. YET THE WORLD WE EXPERIENCE IS FULL SIZE AND THE RIGHT WAY UP.

THE VISUAL SENSORY INFORMATION IS **PROCESSED** BY SPECIALISED PARTS OF THE BRAIN.

OUR **MINDS/BRAINS** ALLOW US TO PERCEIVE THE WORLD AS WE DO.

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